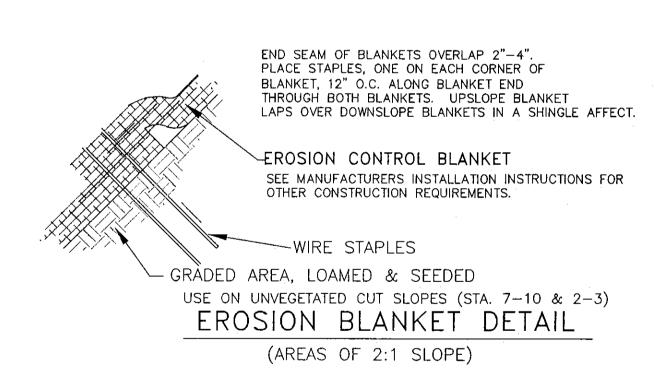
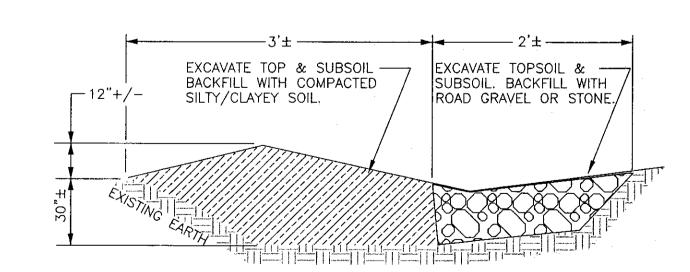


NOTE: IF STONE PAD DOES NOT ADEQUATELY PRECLUDE MUD TRACKING ONTO TOWN ROAD, HAND REMOVAL AND/OR WASHING AT APPROVED LOCATION SHALL

## CONSTRUCTION ENTRANCE DETAIL NTS



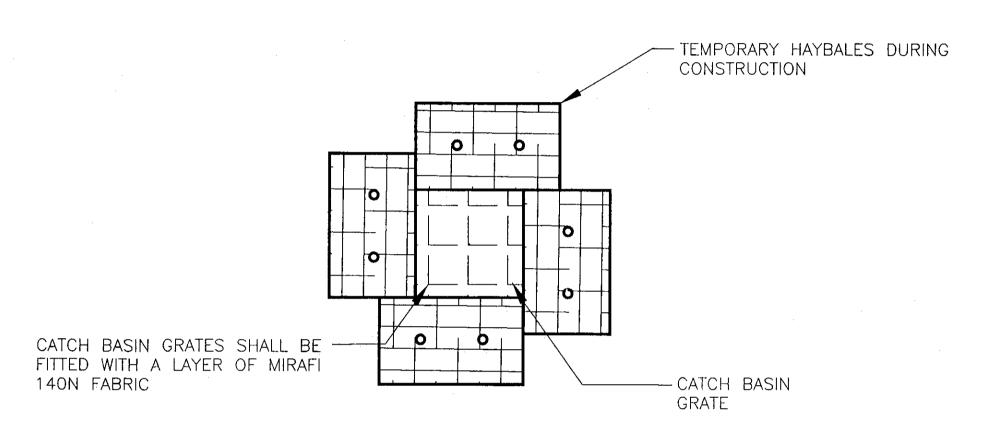


INSTALL WHERE DIVERSION OF OVERLAND RUNOFF IS DESIRED NOTE: REMOVE WATER BAR FROM R.O.W. PRIOR TO PAVING WATER-BAR DETAIL NTS

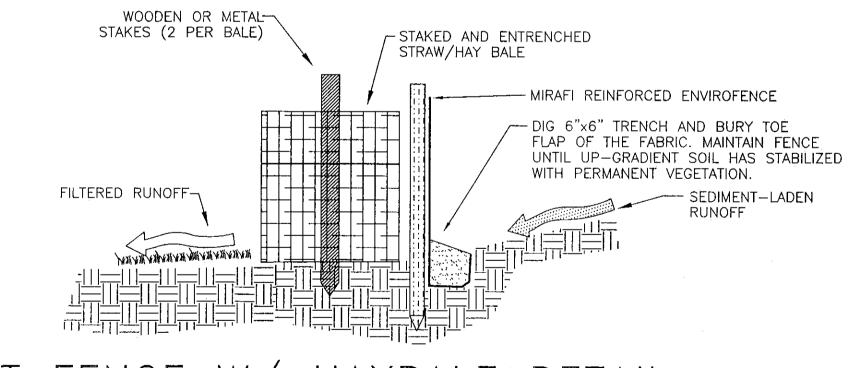
W1 W2 L 12"ø & 15"ø 3' 8' 10' INSTALL MIRAFI 140N FABRIC UNDER RIP-RAPPED AREA TEMPORARY HAYBALES DURING CONSTRUCTION BOULDER HEADWALL-AT OUTFALL

RIP-RAP APRON DETAIL NTS

(PLAN VIEW)



## CATCH BASIN/HAYBALE DETAIL NTS.



## SILT FENCE W/ HAYBALE DETAIL NTS

INFILTRATION BED/BASIN CONSTRUCTION NOTES:

1. Infiltration beds/Bio-retention basins should never serve as temporary sediment traps for construction.

2. Before development site is graded, the area of the infiltration bed/basin should be roped off to prevent heavy equipment from compacting the underlying soils.

3. During and after excavation, all excavated materials should be placed downstream, away from the infiltration bed/basin, to prevent redeposition of these materials during runoff events.

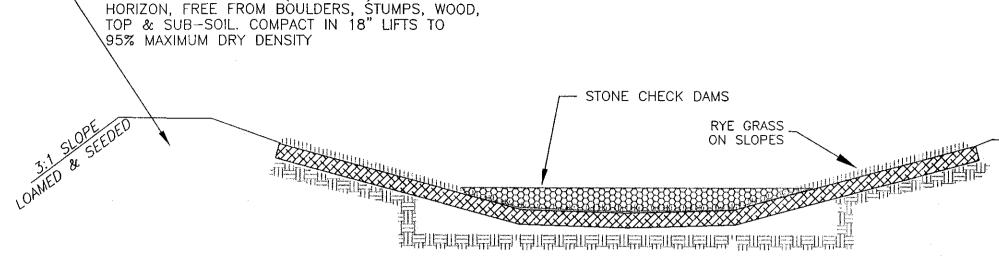
These materials should be properly handled and disposed of during and after construction. 4. Infiltration beds/basins should not be constructed until the entire contributing drainage area has been stabilized. Diversion berms should be placed around the perimeter of the infiltration bed/basin during all phases of construction. Sediment and erosion controls should be

used to keep runoff and sediment away from the bed/basin area. 5. Light earth-moving equipment should be used to excavate the infiltration bed/basin. Use of heavy equipment causes compaction of the soils beneath the bed/basin floor and basin side slopes, resulting in reduced infiltration capacity. Since some compaction of soils will occur during construction, the bed/basin floor should be deeply tilled

with a rotary tiller or a disc harrow to restore infiltration rates, after final grading. 6. Prior to placing stone, pipes or erosion matting, the basin/bed shall be hard raked and all sediment removed.

7. If stormwater will be routed through pipes to a bed/basin prior to site stabilization, the bottom area shall be temporarily covered with MIRAFI 140N fabric during such use. Obtain engineer's approval before installing pipe/stone at beds or turf matting at swales and basins.

CONSTRUCT FILL BERM (IF NEEDED) WITH ON-SITE 'C" SOIL HORIZON, FREE FROM BOULDERS, STUMPS, WOOD, TOP & SUB-SOIL. COMPACT IN 18" LIFTS TO



TEMPORARY TREATMENT BASINITS

EROSION CONTROL NOTES

1) INSTALL THE EROSION CONTROL (SILT FENCING AS SHOWN ON PLANS), PRIOR TO ANY EXCAVATION/ALTERATIONS ON SITE.

2) CONSTRUCT COBBLE STONE STABILIZED ENTRANCE APRON PER DETAIL AT EACH PROJECT ENTRANCE.

3) THE CONSTRUCTION SEQUENCING SHALL BE AS FOLLOWS:

1. INSTALL PERIMETER EROSION CONTROLS. 2. CONSTRUCT TEMPORARY DETENTION BASINS

3. STABILIZE SLOPES IN THE TEMPORARY DETENTION BASINS. ALL ELEMENTS TO RECEIVE RUNOFF SHALL BE FIRST STABILIZED PRIOR TO DIRECTING WATER TO THEM. UTILIZE NORTH AMERICAN GREEN'S C350 EROSION CONTROL/TURF REINFORCEMENT

MAT. USE LOAM SEED & MULCH IN BASINS IF IN GROWING SEASON. 3. REMOVE TREES, STRIP, AND STOCKPILE SOILS. IF STOCK PILE IS LEFT FOR MORE THAN 21 CALENDAR DAYS, IT SHALL BE COVERED WITH A

6. INSTALL PERMANENT DRAINAGE STRUCTURES, SUB DRAINS, ETC.

TEMPORARY VEGETATIVE COVER (RYEGRASS OR APPROVED EQUAL). 4. CUT AND FILL ROADS AND SIDE SLOPES AND CONSTRUCT TEMPORARY WATER BARS 5. LOAM SIDE SLOPES & SEED/MULCH WITHIN 72 HOURS OF FINAL GRADE.

5) SLOPE SEEDING SHALL BE SLOPE SEED TYPE-44 MIX. SEED APPLICATION SHALL CONTAIN STABILIZING STRAW MULCH. SEEDING DATES SHALL CONFORM WITH STANDARD SPRING OR FALL PLANTING SEASON. TEMPORARY SEEDING SHALL BE AN ANNUAL RYEGRASS (OR RYEGRASS BLEND) SUITABLE FOR THE LOCALE

(Ref. Comprehensive Permit WDRD Bk.46010 pgs.1-37)

Approval By

Town of Grafton

Zoning Board of Appeals

6) STAKED & ENTRENCHED HAY BALES SHALL BE PLACED AROUND CATCH BASINS AND DRAINAGE OUTFALLS. INSPECT AND REPAIR EROSION CONTROLS AND CONCENTRATED FLOW AREAS AT LEAST WEEKLY AND FOLLOWING EACH RAINFALL (1/2" OR MORE), OR FOLLOWING

7) ADDITIONAL HAY BALE DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED RUNOFF AND GEOTEXTILES AND RIP-RAP ADDED AS NECESSARY TO REDUCE FLOW ENERGY AND PRECLUDE SOIL EROSION.

8) ONCE TEMPORARY BASINS ARE CONSTRUCTED. A LAYER OF MIRAFI 140N (OR EQUAL) FABRIC SHOULD BE INSTALLED TO AID IN THE BASIN CLEANING DURING THE UNSTABILIZED SITE CONDITIONS. AUGMENTED WITH FILTERS PER DETAIL WHEN APPRPORIATE

9) THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED AT ANY ONE TIME DURING CONSTRUCTION. AND IN NO CASE EXCEED 5 ACRES WITHOUT STABILIZATION. STABILIZATION SHALL MEAN a) BASE COURSE GRAVEL IN PLACE, b) A MINIMUM OF 85% OF SURFACE VEGETATION IS ESTABLISHED. c) A MINIMUM OF 3" OF STONE OR RIP-RAP INSTALLED, d) EROSION CONTROL BLANKET/MATTING HAS BEEN PROPERLY INSTALLED. BARE EARTH WHICH CANNOT BE READILY STABILIZED WITH PERMANENT OR TEMPORARY SEED MIX DUE TO CONSTRUCTION TIMING OUTSIDE OF PLANTING SEASONS, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN'S S150BN EROSION CONTROL/TURF REINFORCEMENT MAT.

10) THE SITE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF SITE STABILIZATION MEASURES AND MAKE ADJUSTMENTS AND REPAIRS WHERE NECESSARY.

11) ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. ALL ROADWAYS/ PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT OCCUR UNTIL AFTER THE ROADWAY AND ASSOCIATED DRAINAGE HAVE BEEN COMPLETED AND STABILIZED.

12) WINTER CONSTRUCTION NOTES:

a) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES STEEPER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS:

b) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15th. OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AND,

c) AFTER NOVEMBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL.

## STORMWATER SYSTEM OPERATION & MAINTENANCE:

A) RESPONSIBILITY- THE APPLICANT SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER SYSTEM.

B) INSPECTIONS- SYSTEM INSPECTIONS SHALL BE MADE WEEKLY DURING CONSTRUCTION, AND AFTER HEAVY RAINS (I.E. 1/2") AND ADJUSTMENTS MADE PROMPTLY. CATCH BASINS SHALL BE INSPECTED QUARTERLY (MONTHLY DURING THE FIRST FEW MONTHS AFTER INSTALLATION). BASINS & SWALES SHALL BE INSPECTED MONTHLY DURING THE FIRST COUPLE YEARS AFTER CONSTRUCTION AND SEMIANNUALLY THEREAFTER.

C) MAINTENANCE- CATCH BASIN SUMPS SHALL BE CLEANED ANNUALLY. NO MORE THAN 12" OF SEDIMENT SHOULD BE ALLOWED TO BUILD UP IN THE SUMP. CLEAN SEDIMENT FROM THE SWALES AND BASINS ANNUALLY AND RAKE, FERTILIZE & SEED. REPAIR RIP-RAP AS NECESSARY. REMOVE SHRUB/WOODY GROWTH FROM THE SWALES AND BASINS ONCE A

THE CONTRACTOR & OWNER ARE RESPONSIBLE FOR COMPLIANCE WITH THE CONSERVATION ORDER OF CONDITIONS AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED MANUAL/NARRATIVE. ALSO SEE SEPARATE INSPECTION AND OPERATION MANUAL.

RAL: 8/1/12 FOR ZBA

ROVIDEN D COMMONS; 19 EROSION CONT CE ON PROVIDENCAY; GRAFTC ROAD AN- E PROVIDENCE 40B SITE PL

COMMON

CHUSE

Engineering

GRA

PREPARED 43 CORTLAN

FOR:

DRAWING SET SHEET 11 OF 12